Amendments to the Claims

Please amend claims 1, 16 and 23 as indicated in the listing of claims.

Please cancel claims 15, 17 and 19 without prejudice.

Claims 11-14 and 22 were previously canceled.

Claims 18 and 20-21 were previously withdrawn.

The listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A method for accelerating the rate of mucociliary clearance in a subject in need thereof, comprising administering to the subject an effective mucociliary clearance stimulatory amount of a composition comprising a human Kunitz-type serine protease inhibitor and a physiologically acceptable carrier, wherein the human Kunitz-type serine protease inhibitor is SEQ ID NO:8, and wherein the effective amount is at least about 9 mg, thereby accelerating the rate of mucociliary clearance.

2. (Previously presented) The method according to claim 1, wherein the composition is administered to the lung airways.

3. (Previously presented) The method according to claim 1, wherein said composition is administered directly by aerosolization.

4. (Previously presented) The method according to claim 1, wherein said composition is administered directly as an aerosol solution into the subject's respiratory tract.

5. (Previously presented) The method according to claim 4, wherein said aerosol solution includes respirable particles ranging in size from about 1 to about 10 microns.

6. (Previously presented) The method according to claim 4, wherein said aerosol solution includes respirable particles ranging in size from about 1 to about 5 microns.

7. (Previously presented) The method according to claim 4, wherein said aerosol solution is delivered to said subject by a pressure driven nebulizer or administered as dry powder.

8. (Previously presented) The method according to claim 4, wherein said aerosol solution is delivered to said subject by an ultrasonic nebulizer.

9. (Previously presented) The method according to claim 4, wherein said aerosol solution is delivered to said subject by a non-toxic propellant.

10. (Previously presented) The method to claim 1, wherein said carrier is a member selected from the group consisting of a physiologically buffered solution, an isotonic saline, normal saline, and combinations thereof.

11-14. (Canceled).

15. (Canceled).

16. (Currently amended) The method according to claim 1 ~~or 15~~, wherein the human Kunitz-type serine protease inhibitor is glycosylated.

17. (Canceled).

18. (Withdrawn) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor contains at least one intra-chain cysteine-cysteine disulfide bond selected from

the cysteine-cysteine paired groups consisting of CYS11-CYS61, CYS20-CYS44, CYS36-CYS57, CYS106-CYS156, CYS115-CYS139, and CYS131-CYS152 for any of SEQ ID NO.: 49, SEQ ID NO.: 2, SEQ ID NO.: 45, SEQ ID NO.: 47, SEQ ID NO.: 71, SEQ ID NO.: 70, SEQ ID NO.: 3, SEQ ID NO.: 50, SEQ ID NO.: 1, and SEQ ID NO.: 52, wherein the cysteine residues are numbered according to the amino acid sequence of SEQ ID NO.: 52.

19. (Canceled).

20. (Withdrawn) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor contains at least one intra-chain cysteine-cysteine disulfide bond selected from the cysteine-cysteine paired groups consisting of CYS106-CYS156, CYS115-CYS139, and CYS131-CYS152 for any of SEQ ID NO.: 6, and SEQ ID NO.: 7, wherein the cysteine residues are numbered according to the amino acid sequence of SEQ ID NO.: 52.

21. (Withdrawn) The method according to claim 1, wherein the human Kunitz-type serine protease inhibitor contains at least one intra-chain cysteine-cysteine disulfide bond selected from the cysteine-cysteine paired groups consisting of CYS11-CYS61, CYS20-CYS44, CYS36-CYS57, wherein the cysteine residues are numbered according to the amino acid sequence of SEQ ID NO.: 52.

22. (Canceled).

23. (Currently amended) The method of claim 1, wherein the Kunitz-type serine protease inhibitor inhibits a sodium ~~channels~~channel.

24. (Previously presented) The method of claim 23, wherein the channel is an epithelial sodium channel.

25. (Previously presented) The method of claim 1, wherein Kunitz-type serine protease increases tracheal mucus velocity (TMV) in the subject.